

### **REMARKS**

This responds to the Office Action dated February 18, 2010.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-3, 7, 9-12 and 14-30 are now pending in this application.

#### **The Rejection of Claims Under § 103**

Claims 1-3, 7, 9-12, and 14-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,653,969 ('969), issued to Carballada et al. in view of US 5,804,173 ('173), issued to Hutchings et al. and EP 0 590 604 ('604), both '173 and '604 are of record. US 5,804. The Examiner acknowledges that the '969 patent fails to teach the gel formulation claimed by stating, "'969 does not expressly teach the surfactant as ethoxylated alcohol. '969 does not expressly teach the additional agent such as sunscreen is added into the low-residue hair product. '969 does not expressly teach the herein claimed ratio between the monomer unit of acrylate copolymer as 7.5-8.5: 1.8-2.3."

The Examiner cited '969 as teaching a low-residue, rinse-off hair care product containing copolymers of methyl methacrylate and ethyl acrylate. The Examiner cited '969 as teaching a copolymer made of a "monomer A" that can be present in a range of 50-85% and a "monomer B" that can be present in a range of 15-40%. The Examiner further cited '969 as teaching the use of isoparaffin as a useful solvent and that Ceteareth-20, dimethicone, and isododecane can be included in the mixtures. The Examiner stated that '969 does not teach an ethoxylated alcohol as a surfactant, the addition of sunscreen agents, or the 7.5-8.5:1.8-2.3 ratio of monomer units. The Examiner cited to '173 as teaching easy-off hair products that can incorporate ethoxylated alcohol surfactants and sunscreen agents.

The Examiner stated that it would have been obvious to one of skill in the art to employ the ethoxylated alcohol surfactants and sunscreen agents taught in '173 into the hair composition of '969. The Examiner also stated that, since the monomer ratios taught by '969 encompass the ratios recited in Applicants claims, it would have been obvious to one of skill in the art to employ the claimed ratios of monomers in the hair product of '969 because optimization of result-effect parameters is obvious as being within the skill of the artisan.

Applicants respectfully disagree. '969 does not teach or suggest a copolymer that is the same as that used by Applicants' in the instant compositions. '969 teaches the use of copolymers made by random polymerization of a "Monomer A" and a "Monomer B." '969 teaches that the Monomer A can be methyl methacrylate and Monomer B can be ethyl acrylate. '969 further teaches that 50 to 85 percent of the weight of the copolymer is made up of the Monomer A with the remaining 15 to 50 % of the copolymer being formed from by the Monomer B (see Col 6, lines 58-59 and Col 8, lines 2-3). Because the molecular weights of ethyl acrylate and methyl methacrylate are almost identical, '969 teaches a copolymer having an ethyl acrylate to methyl methacrylate ratio of about 1-3.33:3.33-5.66.

Applicants' inventions recited in Claim 1 and its dependant claims, on the other hand, include a copolymer with an ethyl acrylate to methyl methacrylate ratio of between 7.5-8.5:1.8-2.3, which is a ratio not encompassed by the ratio taught in '969. In fact, the ratio taught by '969 is not even close to the ratio recited in Applicants' claims. The '969 copolymer has anywhere from even amounts of the two monomers to almost 6 times as much methyl methacrylate as ethyl acrylate. The ratio recited in Applicants' Claim 1, however, require anywhere from about 3.26 to 4.72 times more ethyl acrylate than methyl methacrylate. Hence, Applicants' claimed copolymer is anywhere from 326% to more than 1000% richer in ethyl acrylate than the copolymer taught by '969. Applicants respectfully reiterates that this difference is not a trivial or a case where one of skill in the art would simply optimize the teachings of '969 to arrive at the instant invention as argued by the Examiner..

In order to optimize a chemical formula, one of skill in the art would need to know what characteristic he/she is optimizing the formula for. In this case, Applicants' invention provides a new cosmetic component that has increased softness and elasticity. '969 doesn't even mention elasticity and actually teaches away from modifying its compositions to increase softness (see Col 20, lines 14-22 of '969). Applicants respectfully submit that one of skill in the art would not have been motivated to modify the polymer taught by '969 in order to produce a copolymer having the ratio of monomers recited in Claim 1 or to produce a gel or emulsion having the softness and elasticity characteristics recited in Claims 2 and 20. If the Examiner maintains his position that it would have been obvious for one of skill to modify the teachings of '969 to arrive at the Applicants' invention, Applicants respectfully request that the Examiner explain precisely

what would have motivated the one of skill in the art to go against the teachings of '969 in order to search for a formulation that would provide an increased softness and elasticity.

The Examiner claimed that there is no evidence in the instant case demonstrating an unexpected benefit of the claimed composition. Applicant would like to direct the Examiner's attention to paragraphs 0025-0027 which explains that stable compositions having the characteristics of the instant gel were surprising to those of skill in the art. Furthermore, in the case of the compositions that combine the solvent with an ethyl acrylate/methyl methacrylate copolymer film-forming agent, the inventive compositions provide a 400 to 500% increase in elasticity and a softness that is considerably higher compared to compositions that utilize the film-forming agents alone.

Newly added Claims 27-30 require gels or emulsions having between 0.1-15% film-forming agent and 51-70% solvent. '969 teach to always use more copolymer than solvent in their hair care compositions (see Col 11, lines 56-61 of '969). '969 does not teach or suggest gels or emulsions having a film-forming agent and solvent in the relative amounts recited in Claims 27-30.

For at least these reasons, Applicants respectfully submit that neither '969 nor '173, or '604 either alone or in combination, teach or suggest Applicants' claimed inventions.

**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's representative at (612) 373-6976 to facilitate prosecution of this application.

If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 19 day of July, 2010.

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